UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,902	07/20/2001	Vik Arild	ARIL3001/REF	7002

7590 03/29/2006

Bacon & Thomas
625 Slaters Lane
Fourth Floor
Alexandria, VA 22314-1176

EXAMINER	
HENDRICKSON, STUART L	

ART UNIT	PAPER NUMBER
1754	

DATE MAILED: 03/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/787,902
Filing Date: July 20, 2001
Appellant(s): ARILD, VIK

Richard Fichter
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9/16/05 appealing from the Office action mailed 4/1/04.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: The rejection by Voet is a 102/103 rejection, not a separate 102 followed by a separate 103 rejection.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 5, 8 and 18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Voet et al. article.

Voet teaches on pg. 135-136 decomposing methane to deposit carbon on particulate carbon. No mention is made of forming hydrogen, however this is deemed to occur since the hydrogen is not otherwise accounted for. The carbon substrate is 'micropulverized' to a size of 1800A which is deemed to be indistinguishable from 'dust'.

Claims 5-9, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over 118263. The reference teaches in ex. 1 heating carbon particles by heat exchange from another process, then depositing carbon on them from the decomposition of a hydrocarbon. The product can be milled and recycled. The reference does not teach 'powder', however using a powder therein is an obvious expedient to provide a carbon source on which deposition can occur and which is fine enough to have a sufficient residence time for the reaction.

Claims 5-9, 16, 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) Claim 18 is unclear as to the meaning of 'down to'; as to whether this temperature (or a lower one) is required.

B) Claim 5 is unclear and inconsistent in that no recycling is recited.

C) In claim 9, 'fine' is subjective and unclear. Also, 'crushing' is incorrect- 'being crushed' appears correct.

(10) Response to Argument

The argument that claim 5 requires recycling is not persuasive since it is never stated what is recycled or when. It could be the carbon; it could be the gas. It could be the fact that the apparatus was used for something previously. The phrase 'in a recycling process' in the preamble of claim 5 is not given patentable weight for this reason. The argument that claim 5 requires recycling of the carbon is inconsistent with the attempted amendment after-final, in which it was proposed to recite recycling of the gas. Claim 18 does not actually specify that 400 degrees is chosen, although applicant argues that the claim requires this temperature. The rejections are predicated upon the notion that the claim is open to higher temperatures.

The crux of the argument of Voet is that the reference does not teach recycling, and that this is required in claim 5. The argument concerning claim 18 is that this claim requires a low temperature. However, it is believed that these features argued are not required by the respective claims. There is no '103 obviousness' rejection made over Voet. Rather, the one rejection which is made is a 102/103, proper when the reference appears to recite all the claimed features. In this case, the claims require 'carbon dust' and the reference does not explicitly teach this. However, the reference teaches 1800 A size particles, which are not seen as patentably distinct. Further, the reference is silent as to the hydrogen, however it appears it must be generated as demanded by the Law of Conservation of Matter.

Concerning the rejection over '263, the reference teaches carbon particles going from the top to the bottom. Also taught is classifying the carbon, grinding and recycling to the reactor. The size of the particles is to be optimized and it is an obvious expedient to choose a size which gives a good flow rate and reactivity. It is deemed that it is thus obvious to make the particles the same size as required by the claims- which themselves do not specify a maximum or minimum size. The argument with respect to claim 9 is essentially the same, given that '263 clearly recites removing carbon, grinding to get the original particle size (which is smaller, since grinding things makes them smaller) and recycling the carbon. Therefore, the reference recognizes that the particles do indeed get bigger. No differences are seen in the size of the carbon, and in any event the choice of carbon particle size is an obvious expedient as previously discussed. The argument concerning the concentration of hydrogen is not persuasive, since the claims makes no mention of this feature. The reference clearly teaches hydrogen being produced. The claims are not drawn to the rate of pyrolysis argued, nor in the actual mode by which the carbon is recycled. Thus, the rejections should be sustained.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Stuart Hendrickson

STUART L. HENDRICKSON
PRIMARY EXAMINER

Conferees:

Stanley silverman

Patrick Ryan